

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HUAWEI TECHNOLOGIES CO. LTD,	§	
	§	
Plaintiffs,	§	
	§	
v.	§	No. 2:16-CV-00052-JRG-RSP
	§	
T-MOBILE US, INC. and	§	
T-MOBILE U.S.A., INC.,	§	
	§	
Defendants.	§	

REPORT AND RECOMMENDATION

T-Mobile’s Motion for Summary Judgment of Ineligibility of U.S. Patent Nos. 8,069,365 and 8,719,617 [Dkt. # 259] is now before the Court. The Court concludes the motion should be **DENIED**.

I. BACKGROUND

The ’365 and ’617 Patents (together, “the Asserted Patents”) relate generally to IP multimedia subsystems (IMS) of wireless communication networks. These subsystems facilitate certain packet-based communications (e.g., Internet access and web services) over the network between User Equipment (UE).

The IMS framework includes different types of Call Session Control Function (CSCF) nodes and a Home Subscriber Server (HSS). The CSCF nodes are responsible for signaling that controls the communication of UE across the network. The HSS stores subscriber information and communicates with the CSCF nodes to support network access.

The Asserted Patents teach three types of CSCF nodes. The Proxy CSCF (P-CSCF) is the point of contact between a UE and the IMS network. *See, e.g.*, '365 Patent figs.1–3. The Serving CSCF (S-CSCF) acts as the core of the network service processing and is “quite important to . . . the high reliability of the IMS.” '365 Patent at 1:28–33. And the Interrogating CSCF (I-CSCF) assigns the UE to a particular S-CSCF based on information received from the HSS. *Id.* at 44–60.

Figures 1–3 of the Asserted Patents show how the CSCF nodes and HSS interact in the “conventional art.” Figure 1 shows the registration process whereby the HSS assigns a particular S-CSCF to a “calling” UE. Figure 2 shows the process of creating a session between two UEs over the network.

Figure 3, however, is most important to understanding the claimed advance of the Asserted Patents. The UE includes a registration timer which will expire under certain conditions (e.g., failure of the assigned S-CSCF and the resulting interruption in communication) and trigger re-registration of the UE with the IMS. After the timer expires, the UE attempts to again register with the failed S-CSCF (S-CSCF1) twice, but times out (steps 1–12). Eventually, however, the I-CSCF assigns a new S-CSCF (S-CSCF2) and forwards the registration request to the new S-CSCF (steps 13–15). Finally, the UE finishes registering with the newly assigned S-CSCF as described with reference to Figure 1.

According to the Asserted Patents, the problem with this conventional implementation is one of efficiency. If the assigned S-CSCF fails, the UE’s network service cannot

be restored until the registration timer triggers, and the network completes, the re-registration process shown in Figure 3. The longer the setting of the registration timer, the longer the service interruption to the user, so the registration timer is preferably set as short as possible. But if the setting is too short, the timer may inadvertently trigger frequent re-registrations, which unnecessarily increase the processing burden on the network, take up bandwidth, and waste energy. '365 Patent at 3:42–61.

The Asserted Patents purport to address this problem by obviating the use of the registration timer from the implementation in cases where the assigned S-CSCF fails. To accomplish this, the IMS copies and stores the data it needs to handle the user's traffic in the HSS. Then, when the UE is called for the first time after the S-CSCF fails, the I-CSCF doesn't need to wait for completion of the registration timer cycle described with reference to Figure 3. Instead, if the I-CSCF determines there was a failure of the assigned S-CSCF, the I-CSCF simply assigns a new S-CSCF. '365 Patent at 13:23–46. Then, after receiving the call session set-up request, the newly-assigned S-CSCF can read the backup copy of the data from the HSS and complete the call using the previously backed up data. *Id.* at 13:46–65, 14:3–19. The S-CSCF can then forward the call according to the information it acquired from the HSS. Thus, the IMS completes the user call without experiencing the interruption in service that would occur in the conventional art while the I-CSCF waits for the registration cycle to complete.

II. APPLICABLE LAW

Section 101 of the Patent Act sets forth subject matter eligible for patent protection: “any new and useful process, machine, manufacture, or composition of matter, or any new

and useful improvement thereof.” 35 U.S.C. § 101. Courts recognize, however, that § 101 excludes laws of nature, natural phenomena, and abstract ideas. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (noting that an implicit exception for laws of nature, natural phenomena, and abstract ideas has been recognized for over 150 years). Admittedly, the line between patent-eligible subject matter and unpatentable concepts can be blurry. *See, e.g., MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1259 (Fed. Cir. 2012) (“Our opinions spend page after page revisiting our [§ 101] cases and those of the Supreme Court, and still we continue to disagree vigorously over what is or is not patentable subject matter.”).

In *Alice*, the Supreme Court articulated a two-step test for distinguishing claims directed to laws of nature, natural phenomena, and abstract ideas from claims directed to patent-eligible applications of those concepts. *Alice*’s first step requires a court to determine if a challenged claim is directed to one of these concepts. *Alice*, 134 S. Ct. at 2355; *see also Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1340 (Fed. Cir. 2013) (“The question of eligible subject matter must be determined on a claim-by-claim basis.”). To do so, the court should look at the “focus of the claimed advance over the prior art” and decide whether the claim’s “character as a whole” is directed to excluded subject matter. *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016); *see also Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015) (considering the claims “in their entirety to ascertain whether their character as a whole is directed to excluded subject matter”). The court, however, must avoid oversimplifying key inventive concepts of the claim or downplaying an invention’s benefits by looking at the claim generally and

ignoring its specific requirements. *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016).

If the Court finds an ineligible concept after considering the claims’ “character as a whole,” *Alice*’s second step requires the court to consider the elements of each claim—both individually and together—to determine whether the additional elements beyond the ineligible concept transform the nature of the claim into a patent-eligible application. *Alice*, 134 S. Ct. at 2355. For example, a claim directed to an ineligible concept may become patent-eligible when it includes unconventional steps that confine the claims to a particular application of the principle, *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 84 (2012); *see also DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014), or where specific technological modifications solve a problem or improve the functioning of a known system, *see Trading Techs. Int’l, Inc., v. CGQ, Inc.*, No. 2016-1616, 2017 WL 192716, at *3 (Fed. Cir. Jan. 18, 2017). But a claim likely remains patent-ineligible if it describes only post-solution activity that is purely conventional or obvious. *Mayo*, 566 U.S. at 79; *see also Alice*, 134 S. Ct. at 2358 (noting “wholly generic computer implementation is not generally the sort of additional feature that provides any practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself”).

III. DISCUSSION

It its *Alice* Step 1 analysis, T-Mobile argues the claims’ character as a whole is directed to nothing more than backing up and recovering data. T-Mobile’s Motion [Dkt. # 259] at 8–12. T-Mobile characterizes the problem addressed by the Asserted Patents as one

of “disappearing information,” and not one “specifically arising in the realm of computer networks” or “necessarily rooted in computer technology.” *Id.* at 10 (quoting *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)).

Huawei responds the claims are directed to a particular problem found in wireless communications networks. It criticizes T-Mobile for oversimplifying the claimed inventions and ignoring the claim limitations that require particular steps to be performed with particular data. Huawei’s Resp. [Dkt. # 277] at 7–10.

The Court concludes T-Mobile does, in fact, oversimplify the character of the claims as merely data backup and recovery. That characterization is divorced from the problem the Asserted Patents purport to solve—the side effects stemming from use of a registration timer to initiate re-registration by the UE after failure of an assigned S-CSCF. But more importantly, T-Mobile’s characterization ignores the other limitations of the challenged claims.

Instead, the Court finds the claimed advance as a whole is directed to maintaining or restoring network service after an assigned S-CSCF fails without requiring re-registration of the UE—that is, without relying on the UE’s registration timer. For example, Claim 1 of the ’365 Patent requires assigning a new S-CSCF to the user, after which the newly assigned S-CSCF will acquire the backed-up data and restore service to the UE based on that data. Indeed, *each* of the challenged claims restores service based on the information in the backed-up data.

Clearly, then, the claims are directed to a particular technical problem that only exists in wireless communication networks operating under an IMS architecture. In fact, the

claims specifically recite elements of the IMS, including the S-CSCF and the I-CSCF. Given that, the claims' character as a whole cannot be classified as an "abstract idea" under *Alice's* Step 1.

IV. RECOMMENDATION

The Court concludes T-Mobile's Motion for Summary Judgment of Ineligibility of U.S. Patent Nos. 8,069,365 and 8,719,617 [Dkt. # 259] should be **DENIED**.

A party's failure to file written objections to the findings, conclusions, and recommendations contained in this report within 14 days bars that party from *de novo* review by the district judge of those findings, conclusions, and recommendations and, except on grounds of plain error, from appellate review of unobjected-to factual findings and legal conclusions accepted and adopted by the district court. Fed. R. Civ. P. 72(b)(2); *see Douglass v. United Servs. Auto. Ass'n*, 79 F.3d 1415, 1430 (5th Cir. 1996) (en banc).

SIGNED this 29th day of August, 2017.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE